A. SKACHKOV, I. SKACHKOVA

THEORETICAL AND METHODICAL TOOLKIT FOR MANAGING THE STAKEHOLDERS OF A PROJECT

The **subject** matter is the processes of managing the stakeholders of a project. The **goal** of the work is to develop a theoretical and methodological toolkit that will help rationalize the work with the stakeholders of a project. The objectives of the project are to improve the processes of managing the stakeholders of a project by analyzing the stakeholders of the project, creating a list of stakeholders, grouping stakeholders, identifying key stakeholders and building the reserve of project stakeholders. The **methods** used are the methods of strategic management in the project activity. The **result** of the study is modelling the process of managing the stakeholders of a project with the help of the Allfusion Process Modeller software, which will enable systematizing the information on the stakeholders of a project, forming the reserve of stakeholders and thereby reducing the risk of the project incompleteness. The first step of the model is the analysis of project documentation and the creation of a list of the stakeholders of a project. Further, with the help of the Mitchell model, the stakeholders of a project are grouped. Four key stakeholders are identified for the project, namely – a customer, a project team, project performers, the future consumers of the project product. Contributions to the project are determined for each group of key stakeholders as well as incentives (benefits) that stakeholders receive from the project using the ASC model. Contributions and incentives are prioritized (by importance). Then the indicators for each contribution and incentive are determined and this information is recorded. The next step is to create a database of the stakeholders of a project, which enables systematizing information on the importance and the role of all stakeholders in the project. After dividing all the participants into three main categories, namely, the owner of the process or the manager, a key participant or a performer, an observer or important participant, they should be put in the project database. The given work presents the example of such a database organized in a table. The final step of the model for managing the stakeholders is building the reserve of the project stakeholders and updating project documentation. **Conclusions.** Improving the processes of managing the stakeholders of a project is of great importance in the current context as the impact of stakeholders on the project is growing every year and ignoring it will be a big mistake of the project manager.

Keywords: project, project management, management of project stakeholders, theoretical and methodological toolkit, contributions, incentives, role in the project, database.

Introduction

Managing the stakeholders of a project is a very important component of the project management, which is actively developing, as the role of stakeholders and their impact on the project are growing.

A project stakeholder is a person, a group or an organization that may influence the project, or which may be affected by the results of a project or by certain project objectives. [1]

Stakeholders include all participants of the project team as well as all interested subjects, both internal and external, in relation to the organization.

Internal subjects include company authorities, line services, a project team, workers, trade unions, groups of consultants and others.

External ones comprise managers of various specialized organizations in the fields of construction, export-import, insurance, safety engineering, job placement, environment, financial sources such as banks, shareholders of public funds; mass media; politics; trade unions; church; competitors; suppliers; personnel families.

Projects will be more successful if managers properly match their internal resources and opportunities with the needs of stakeholders. At the same time, the influence of stakeholders on the success of a project is significantly higher than in the corporate management.

The analysis of literary sources and problem statement

The theory of stakeholder management was first worked out by E. Ariman in 1984 [2]. Common approaches to managing the stakeholders of a project were developed by H. Sylvasti, R. Youker, S. Bushuev and others. Mathematical models for these purposes were considered in the works by such authors as C. Bell, N. Rackham, A. Frenkel and others [3,4].

However, many theoretical, methodological and especially applied aspects of the project management by the project stakeholders are not sufficiently developed, which determines the importance of this issue.

The goal and objectives of the study are the development of the theoretical and methodological toolkit that will help rationalize the work with the stakeholders of a project.

Materials and methods of the study

Introducing the theory of the stakeholders of a project into practice is based on the use of various tools designed to analyze the stakeholders of a project and their interaction.

The given work suggests that the Mitchell model should be used; this model was described by R. Mitchell, B. Agle and D. Wood in 1997 and is based on the assertion that managers will be concerned about the interests of the stakeholders only if it leads to better results of the firm. The Accountability Scorecard (ASC) system which was described for the first time by the well-known consultant F. Nichols in 2000 is also suggested for using. The database of the stakeholders of a project should also be built to develop the reserve.

The given work suggests modelling the process of managing the stakeholders of a project using AllFusion Process Modeller, namely, building the model "Managing

the stakeholders of a project" on the basis of the methodology of the project management.

The results of the study

The development of a practical toolkit for improving the management of the project stakeholders will reduce the risks of the project, thereby increasing the probability of its successful implementation as the correct assessment of a potential partner is one of the key tasks of a project manager.

The description of results

One of the first tasks of the project manager is to compile a list of project stakeholders. To complete the list of project stakeholders, the project documentation should be analyzed. A project manager thoroughly examines all project documents such as a project plan, a project charter, the retrospective information on similar projects, evaluates the project product and creates the list of project stakeholders on the basis of a detailed study.

The Mitchell model is suggested for managing projects. This model is used for identifying the significance of stakeholders. Stakeholders are classified according to three attributes – power, law, urgency [5].

The attribute "Power" means the capability of a stakeholder to obtain the desired result using force, power, finances and emotional resources. The attribute "Law" means the compliance with legal norms and norms of public morality. The attribute "Urgency" means promptness.

Depending on the amount of each of them, seven groups are distinguished:
- inactive;
- dominating;
- controlling;
- depending;
- demanding;
- dangerous;
- determining.

A certain attribute is not permanent: the parties can acquire or lose it after a while. Project stakeholders are grouped according to the Mitchell model, which is presented in Table 1.

Table 1. *The examples of grouping the project stakeholders according to the Mitchell model*

A stakeholder group	A stakeholder name
Determining group	Customer
Dominating group	Project team
Dependent group	Project performers (a repair and construction company, a designing agency, a recruiting agency)
Dangerous group	Future consumers of the project product
Inactive group	Local authorities
Controlling group	State institutions
Demanding group	Personnel

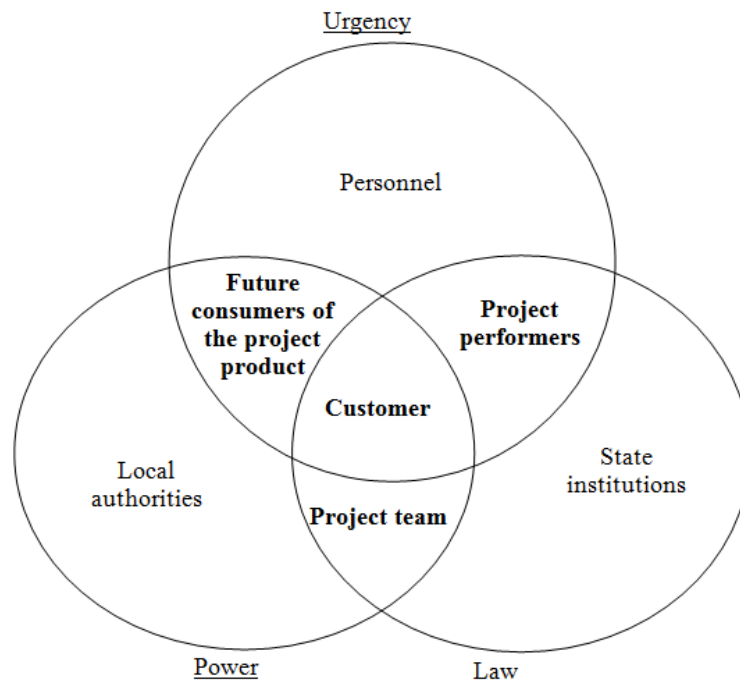The model is graphically presented in fig. 1.

Fig. 1. Graphical presentation of the Mitchell model for the project

Four key stakeholders were distinguished on the basis of the Mitchell model, namely,
- customer;
- project team;
- project performers;
- future consumers of the project product.

The system of accountability indicators (ASC – Accountability Scorecard) is suggested for using in project activities. ASC is developed; this system comprises an enterprise and stakeholders are linked by contributions and incentives. ASC is designed for finding the "balance of interests" between a project and various stakeholders, for studying the interrelations among various stakeholders.

Two types of interaction of a project and stakeholders are distinguished – the contributions of stakeholders, benefits and incentives which maintain the project. In general, stakeholders remain interested only as long as the project provides incentives whose value exceeds contributions or at least compensates them.

Contributions are considered in this article as a material, monetary, physical and other participation of stakeholders in the project.

Incentives are benefits and compensation in any form that provide the project to interested parties.

Thus, the project receives contributions which are determined for each group of key stakeholders of a project and the stakeholders receive incentives (benefits) from the project. Contributions and incentives are prioritized (by significance). Then, the indicators for each contribution and incentive are determined; this information is recorded.

The example of contributions, incentives and corresponding indicators for the basic groups of project stakeholders is given in table 2.

Table 2. *Determining contributions, incentives and corresponding indicators for the basic groups of project stakeholders according to the ASC model*

Project stakeholders	Contributions	Indicators of contributions	Incentives	Indicators of incentives
Customer	Project capital	The amount of investment	Return on investment	Net profit
Project performers	Filling of an order	Average term of work performance	Full and timely payment for work	Average term of payment for work
Project team	Full implementation of the project	Average term of work performance	Working schedule, full and timely payment for work	Favourable working conditions
Future consumers of the project product	Interest in the product of the project	The share of regular customers, the amount of sales revenue	Availability and cost of the project product	The price of the product of the project compared to competitors

It is also suggested to create the database of project stakeholders, which enables systematizing information on the significance and role of all project stakeholders. The creation of the database of project stakeholders should start at the beginning of the project when the goal of the project, the main project participants are known and the charter and the project plan are created. Since the most important task of the project manager is managing the project environment, the database of participants should be constantly updated.

Having a list of project stakeholders, the next step of the project manager is to group them according to the impact they can make on the project. There are three types of participants – the owner of the process or the manager, a key participant or a performer, an observer or an important participant. After dividing all participants into three main categories, they should be put into the project database. One of the easiest tools for creating the database of participants is the Microsoft Excel spreadsheet.

The database of project stakeholders is given in table 3.

Table 3. *The example of the database of the project stakeholders*

The type of the project participants			The scale of the participants' accountability for the project					
PO	KP	IP	F	A	C	P	Pr	I
Customer			+	+				
	Project manager			+		+	+	
	Project team					+	+	
	Project performers				+	+		
	Supplying firms				+			
	State institutions				+			
		Government						+
		Local authorities						+
		Consumers of the project product						+
		Competitors						+
		Social groups of population						+

The type of the project participants and the level of their impact include:

- *PO* – the process owner (can stop or continue a project);

51

ISSN 2522-9818 (print)
Сучасний стан наукових досліджень та технологій в промисловості. 2018. № 1 (3)   *ISSN 2524-2296 (online)*

- *KP* – a key participant (can delay the performance of a project);

- *IP* – an important participant (people who are interested in the project and its results and do not actively participate in it).

Accountability for the project and making a decision includes:

- *F* – a person who finances the project;

- *A* – a person who approves or vetoes;

- *C* – consultant (necessary information should be received from him);

- *P* – preparation (accountability for work initiation);

- *Pr* – a performer (accountability for performing the work);

- *I* – a person who obtains information (only necessary information).

In the database, the positions of the manager, key and important participants are recorded in the left part of the table, while the specific characteristics of participants are given in the right side of the table.

The general model "Managing the project stakeholders" is suggested to be built using AllFusion Process Modeller.

The diagram of the process decomposition "Managing the project stakeholders" is given in fig. 2. According to the model, the cycle of the process "Managing the project stakeholders" is as follows – the analysis of project documentation, the creation of the list of stakeholders, the use of the Mitchell model, the use of the ASC system, building the database of project stakeholders, updating project documentation.

Conclusions

Thus, the processes of managing project stakeholders are modelled using the software All Fusion Process Modeller, which enables systematizing information on stakeholders, forming the reserve of stakeholders and reducing the risk of the project incompleteness.
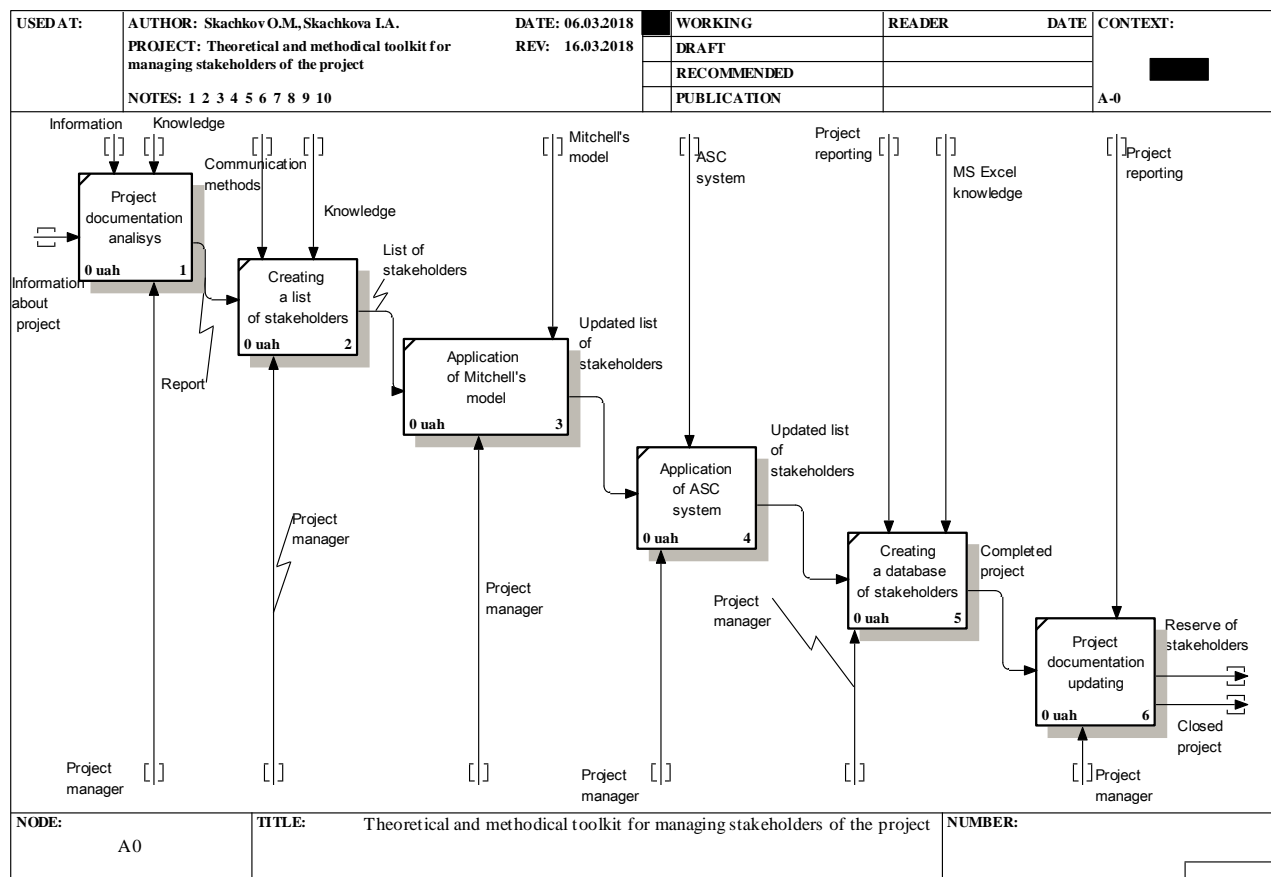

Fig. 2. The diagram of the process decomposition "Managing the project stakeholders"

References

1. *A Guide to the Project Management Body of Knowledge (PMBOK® Guide). Fifth Edition*, Project Management Institute, 2013, 589 p.
2. Friedman, A., Miles, S. (2006), *Stakeholders: theory and practice*, Oxford University Press, London, 360 p.
3. Bell, C. R. (1994), *Customers as partners: building relationships that last*, Berrett Koehler, San Francisco, 235 p.
4. Rackham, N., Friedman, L., Ruff, R. (1996), *Getting partnering right. How market leaders are creating long-term competitive advantage*, MacGrow-Hill, New York. 237 p.
5. Mitchell Ronald, K., Bradley Agle, R., Wood Donna, J. (1997), "Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts" The Academy of Management Review, Vol. 22, No. 4, P. 853-886.

52

ISSN 2522-9818 (print)
ISSN 2524-2296 (online)   *Innovative technologies and scientific solutions for industries. 2018. No. 1 (3)*

6. Sylvasti, Yu. (1993), "Stakeholders management", The world of project management. Foundations, methods, organization, application, from Eng. ["Upravlenie zainteresovannyimi storonami", Mir upravleniya proektami.Osnovyi, metodyi, organizatsiya, primenenie. Per.s angl.] Alans, Moscow, P. 188-192.

7. Freeman, R.E. (1984), Strategic management: A stakeholder approach, Pitman, Boston, 292 p.

8. Ansoff, H. I., & McDonnell, E. J. (1990), Implanting strategic management, Prentice Hall, Cambridge, 520 p.

9. Thompson, A. A., Strickland, A. J (1996), Strategic management: concepts and cases, Irwin, Chicago, 296 p.

10. Svendsen, A. Laberge, M. "FOSTERing Collaborative Stakeholder Relationships", available at : http://masterfulfacilitation.com/articles/fostering.pdf.

Відомості про авторів / Сведения об авторах / About the Authors

Скачков Олександр Миколайович – кандидат технічних наук, Національний аерокосмічний університет імені М.Є. Жуковського "ХАІ", доцент кафедри економіки та маркетингу, м. Харків, Україна; e-mail: skachkovoleksandr@gmail.com; ORCID: 0000-0002-5402-3932.

Скачков Александр Николаевич – кандидат технических наук, Национальный аэрокосмический университет имени Н.Е. Жуковского "ХАИ", доцент кафедры экономики и маркетинга, г. Харьков, Украина; e-mail: skachkovoleksandr@gmail.com; ORCID: 0000-0002-5402-3932.

Skachkov Oleksandr – PhD (Engineering), National Aerospace University – Kharkiv Aviation Institute, Associate Professor of the Department of Economics and Marketing, Kharkiv, Ukraine; e-mail: skachkovoleksandr@gmail.com; ORCID: 0000-0002-5402-3932.

Скачкова Ірина Анатоліївна – кандидат технічних наук, доцент, Національний аерокосмічний університет імені М.Є. Жуковського "ХАІ", доцент кафедри менеджменту, м. Харків, Україна; e-mail: iaskachkova@gmail.com; ORCID: 0000-0003-3822-538X.

Скачкова Ирина Анатольевна – кандидат технических наук, доцент, Национальный аэрокосмический университет имени Н.Е. Жуковского "ХАИ", доцент кафедры менеджмента, г. Харьков, Украина; e-mail: iaskachkova@gmail.com; ORCID 0000-0003-3822-538X.

Skachkova Irina - PhD (Engineering), Associate Professor, National Aerospace University – Kharkiv Aviation Institute, Associate Professor of the Department of Management, Kharkov, Ukraine; e-mail: iaskachkova@gmail.com; ORCID: 0000-0003-3822-538X.

ТЕОРЕТИКО-МЕТОДИЧНИЙ ІНСТРУМЕНТАРІЙ УПРАВЛІННЯ ЗАЦІКАВЛЕНИМИ СТОРОНАМИ ПРОЕКТУ

Предметом є процеси управління зацікавленими сторонами проекту. **Метою** роботи є розробка теоретико-методичного інструментарію, який допоможе раціоналізувати роботу із зацікавленими сторонами проекту. **Завданням** проекту є удосконалення процесів управління зацікавленими сторонами проекту шляхом аналізу зацікавлених сторін проекту, створення переліку зацікавлених сторін, групування зацікавлених сторін, виділення ключових зацікалених сторін та формування резерву зацікавлених сторін проекту. В якості **методів** дослідження пропонується застосувати методи стратегічного управління в проектній діяльності. **Результатом** дослідження є моделювання процесів управління зацікавленими сторонами проекту за допомогою програмного продукту AllFusion Process Modeller, що дозволить систематизувати інформацію щодо зацікавлених сторін проекту, сформувати резерв зацікавлених сторін і тим самим зменшити ризик незавершення проекту. Першим кроком моделі є аналіз проектної документації та створення переліку зацікавлених сторін проекту. Далі за допомогою моделі Мітчелла проведено групування зацікавлених сторін проекту. Було визначено чотири ключові зацікавлені сторони для проекту, а саме: замовник, команда проекту, виконавці проекту, майбутні споживачі продукту проекту. Для кожної групи ключових зацікавлених сторін визначаються внески , які проект отримує від них, і стимули (вигоди), які отримують від проекту зацікавлені сторони за допомогою використання моделі ASC. Проводиться ранжування внесків і стимулів за пріоритетом (важливістю). Далі визначення показників для кожного внеску і стимулу і ця інформація фіксується. Наступним кроком пропонується створити базу даних зацікавлених сторін проекту, що дасть можливість систематизувати інформацію щодо важливості і ролі в проекті всіх його зацікавлених сторін. Після поділу всіх учасників на три основні категорії, а саме: власник процесу чи розпорядник, ключовий учасник чи виконавець, спостерігач чи важливий учасник, їх необхідно занести в базу даних проекту. В представленій роботі надано приклад таблиці такої бази даних. Останній кроком моделі управління зацікавленими сторонами проекту є формування резерву зацікавлених сторін проекту та оновлення проектної документації. **Висновки:** таким чином, удосконалення процесів управління зацікавленими сторонами проекту є досить актуальним в сучасних умовах, так як вплив стейкхолдерів на проект з кожним роком росте, і не враховувати це буде великою помилкою менеджера проекту.

Ключові слова: проект, управління проектами, управління зацікавленими сторонами проекту, теоретико-методичний інструментарій, внески, стимули, роль в проекті, база даних.

ТЕОРЕТИКО-МЕТОДИЧЕСКИЙ ИНСТРУМЕНТАРИЙ УПРАВЛЕНИЯ ЗАИНТЕРЕСОВАННЫМИ СТОРОНАМИ ПРОЕКТА

Предметом являются процессы управления заинтересованными сторонами проекта. **Целью** работы является разработка теоретико-методического инструментария, который поможет рационализировать работу с заинтересованными сторонами проекта. **Задачами** проекта является усовершенствование процессов управления заинтересованными сторонами проекта

путем анализа заинтересованных сторон проекта, создания перечня заинтересованных сторон, группирования заинтересованных сторон, выделения ключевых заинтересованных сторон и формирования резерва заинтересованных сторон проекта. В качестве **методов** исследования предлагается применить методы стратегического управления в проектной деятельности. **Результатом** исследования является моделирование процессов управления заинтересованными сторонами проекта с помощью программного продукта Allfusion Process Modeller, что позволит систематизировать информацию относительно заинтересованных сторон проекта, сформировать резерв заинтересованных сторон и тем самым уменьшить риск незавершения проекта. Первым шагом модели является анализ проектной документации и создания перечня заинтересованных сторон проекта. Дальше с помощью модели Митчелла проведено группирование заинтересованных сторон проекта. Было определено четыре ключевые заинтересованные стороны для проекта, а именно: заказчик, команда проекта, исполнители проекта, будущие потребители продукта проекта. Для каждой группы ключевых заинтересованных сторон определяются взносы, которые проект получает от них, и стимулы (выгоды), которые получают от проекта заинтересованные стороны с помощью использования модели ASC. Проводится ранжирование взносов и стимулов за приоритетом (важностью). Далее определяются показатели для каждого взноса и стимула и эта информация фиксируется. Следующим шагом предлагается создать базу данных заинтересованных сторон проекта, что даст возможность систематизировать информацию относительно важности и роли в проекте всех его заинтересованных сторон. После деления всех участников на три основных категории, а именно: владелец процесса или распорядитель, ключевой участник или исполнитель, наблюдатель или важный участник, их необходимо занести в базу данных проекта. В представленной работе предоставлен пример таблицы такой базы данных. Последней шагом модели управления заинтересованными сторонами проекта являются формирования резерва заинтересованных сторон проекта и обновление проектной документации. **Выводы:** таким образом, усовершенствование процессов управления заинтересованными сторонами проекта есть довольно актуальным в современных условиях, так как влияние стейкхолдеров на проект с каждым годом растет, и не учитывать это будет большой ошибкой менеджера проекта.

Ключевые слова: проект, управление проектами, управление заинтересованными сторонами проекта, теоретико-методический инструментарий, взносы, стимулы, роль в проекте, база данных.